

January 12, 1988

Dockets Nos.: 50-254
and 50-265

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Mr. L. D. Butterfield, Jr.
Nuclear Licensing Manager
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Butterfield:

SUBJECT ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT -
APPENDIX R EXEMPTIONS (TAC NOS. 57282, 57283, 57284, 57285, 62024,
62025, 64493, AND 64494)

RE: Quad Cities Nuclear Power Station, Units Nos. 1 and 2

Pursuant to 10 CFR 51.119, the Commission has requested the Office of the Federal Register to publish the enclosed "Environmental Assessment and Finding of No Significant Impact." This notice is in regards to your requests, dated December 18, 1984, December 4, 1985, June 25, 1986, July 22, 1986, September 30, 1987, October 1, 1987, November 20, 1987, November 23, 1987, and November 30, 1987, for exemptions from the requirements of 10 CFR 50, Appendix R, Section III.G.

Sincerely,

151

Thierry M. Ross, Project Manager
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosure:
Environmental Assessment and
Finding of No Significant Impact

cc w/enclosure:
See next page

PDIII-2:LA LLuther 1/15/88	PDIII-2:PM TRoss:bjr 1/15/88	PDIII-2:D DMiller 1/15/88
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F PDR

Mr. L. D. Butterfield, Jr.
Commonwealth Edison Company

Quad Cities Nuclear Power Station
Units 1 and 2

cc:

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Vice President
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Electric Company
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Mr. Richard Bax
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Quad Cities Nuclear Power Station
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Cordova, Illinois 61242

Resident Inspector
U.S. Nuclear Regulatory Commission
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Cordova, Illinois 61242

Chairman
Rock Island County Board
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Mr. Michael C. Parker, Chief
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Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

COMMONWEALTH EDISON COMPANY

DOCKETS NOS. 50-254 AND 50-265

NOTICE OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission is considering issuance of exemptions from the requirements of 10 CFR Part 50, Appendix R, to Commonwealth Edison Company (CECo, the licensee) for the Quad Cities Nuclear Power Station (Units 1 and 2) located in Rock Island County, Illinois.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action: The proposed action would grant many specific plant exemptions from certain requirements for "Fire Protection of Safe Shutdown Capability" prescribed in sub-sections III.G.1, III.G.2.a, and III.G.3 of Appendix R to 10 CFR 50. In accordance with sub-section III.G.1, fire protection features shall be provided to assure at least one train of equipment necessary for hot shutdown would be undamaged by fire, and systems necessary for cold shutdown could be repaired within 72 hours. More specifically, sub-section III.G.2.a requires cables and equipment, and associated non-safety circuits, of redundant trains to be separated by a three hour rated fire barrier. Where provisions of sub-section III.G.2 cannot be met, then alternative or dedicated shutdown capability shall be provided in accordance with subsection III.G.3. However for any area, room, or zone provided with alternative or dedicated shutdown capability, a fire detection and fixed fire suppression system shall also be installed.

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The Need for the Proposed Action: Since it is not possible to predict all conditions or plant configurations under which a fire can occur and propagate, the Appendix R rule only prescribes general fire protective measures. As such, there will be instances where plant specific configurations or system features could safely allow for different protection from fire damage than specified in the rule (e.g., section III.G).

For these situations, strict compliance may not be required to meet the underlying purpose of the rule. Whereupon for special circumstances identified in 50.12 the licensee can be permitted to forego unnecessary plant modifications. For the particular instances in this proposed action, the licensee has demonstrated by detailed fire hazards analysis that existing protection and/or other proposed modifications will provide a level of safety for certain plant areas and zones which is equivalent to the technical requirements in sub-sections III.G.1, III.G.2, and III.G.3 of Appendix R.

Environmental Impact of the Proposed Action: The proposed exemptions are intended to provide a level of safety equivalent to the technical requirements of Section III.G of Appendix R. These exemptions will not change the types, or allow an increase in the amounts, of effluents that may be released offsite. Nor would they result in an increase in individual or cumulative occupational radiation exposure. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed exemptions.

With regard to potential nonradiological impacts, the proposed exemptions involve features located entirely within the restricted areas as defined in 10 CFR 20. They do not affect nonradiological plant effluents and have no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed exemptions.

Alternative Use of Resources: This action does not involve the use of resources which were not previously considered in the Final Environmental Statement (construction permit and operating license) for Quad Cities Nuclear Power Station, Units 1 and 2.

Alternative to the Proposed Action: Since the Commission has concluded there are no measurable environmental impacts associated with the proposed exemptions, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the exemptions would be to require rigid compliance with the requirements of Section III.G in Appendix R of 10 CFR 50. Such action would not enhance the protection of the environment and would result in unwarranted licensee expenditures of engineering and construction resources, as well as associated capital costs.

Agencies and Persons Consulted: The Commission's staff reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed exemptions.

- 4 -

Based upon the aforementioned environmental assessment, the Commission concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to the proposed action, see the licensee's letters requesting exemptions dated December 18, 1984, and as supplemented by letters dated December 4, 1985, June 25, 1986, July 22, 1986, September 30, 1987, October 1, 1987, November 20, 1987, November 23, 1987 and November 30, 1987. These letters are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555; and at the Dixon Public Library, 221 Hennepin Ave, Dixon, Ill 61021.

Dated at Bethesda, Maryland this 12th day of January 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

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Daniel R. Muller, Director
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects

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Mr. L. D. Butterfield, Jr.
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Sincerely,

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Thierry M. Ross, Project Manager
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects

Enclosure:
Environmental Assessment and
Finding of No Significant Impact

cc w/enclosure:
See next page

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Mr. L. D. Butterfield, Jr.
Commonwealth Edison Company

Quad Cities Nuclear Power Station
Units 1 and 2

cc:

Mr. Stephen E. Shelton
Vice President
Iowa-Illinois Gas and
Electric Company
P.O. Box 4350
Davenport, Iowa 52808

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Isham, Lincoln & Beale
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1035 Outer Park Drive, 5th Floor
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For these situations, strict compliance may not be required to meet the underlying purpose of the rule. Whereupon for special circumstances identified in 50.12 the licensee can be permitted to forego unnecessary plant modifications. For the particular instances in this proposed action, the licensee has demonstrated by detailed fire hazards analysis that existing protection and/or other proposed modifications will provide a level of safety for certain plant areas and zones which is equivalent to the technical requirements in sub-sections III.G.1, III.G.2, and III.G.3 of Appendix R.

Environmental Impact of the Proposed Action: The proposed exemptions are intended to provide a level of safety equivalent to the technical requirements of Section III.G of Appendix R. These exemptions will not change the types, or allow an increase in the amounts, of effluents that may be released offsite. Nor would they result in an increase in individual or cumulative occupational radiation exposure. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed exemptions.

With regard to potential nonradiological impacts, the proposed exemptions involve features located entirely within the restricted areas as defined in 10 CFR 20. They do not affect nonradiological plant effluents and have no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed exemptions.

Alternative Use of Resources: This action does not involve the use of resources which were not previously considered in the Final Environmental Statement (construction permit and operating license) for Quad Cities Nuclear Power Station, Units 1 and 2.

Alternative to the Proposed Action: Since the Commission has concluded there are no measurable environmental impacts associated with the proposed exemptions, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the exemptions would be to require rigid compliance with the requirements of Section III.G in Appendix R of 10 CFR 50. Such action would not enhance the protection of the environment and would result in unwarranted licensee expenditures of engineering and construction resources, as well as associated capital costs.

Agencies and Persons Consulted: The Commission's staff reviewed the licensee's request and did not consult other agencies or persons.

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Dated at Bethesda, Maryland this 12th day of January 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

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Daniel R. Muller, Director
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects

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